

U.S PATENT APPLN S.N. 10/529,847  
DECLARATION UNDER 37 C.F.R. § 1.132

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Appl. No. : 10/529,847 Confirmation No. 1538  
Applicant : Jun SAKAMOTO et al.  
Filed : June 13, 2005  
TC/A.U. : 1796  
Examiner : Gennadiy Mesh  
Dkt. No. : IPE-052  
Cust. No. : 20374

**DECLARATION UNDER 37 C.F.R. § 1.132**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

I, Koichi DAN, declare and state THAT:

1. I have a Master's degree in Kyoto University,  
Graduate School of Engineering Department of Polymer Chemistry.
2. Since 1999, I have been employed by Toray  
Industries, Inc., and from 1999 to 2005 have been a researcher in  
the Global Environment Research Laboratories of Toray Industries,

U.S. PATENT APPLN S.N. 10/529,847  
DECLARATION UNDER 37 C.F.R. § 1.132

Inc.

3. I am now a Senior Researcher in the Films and Film Products Research Laboratories of Toray Industries, Inc. since 2005, and have been engaged in research and development of polymer materials from 1999 to present.

4. I am aware that the claims of U.S. Patent Application Serial No. 10/529,847 were rejected as being anticipated by Aoyama et al., U.S. Patent No. 6,365,659 ("Aoyama"), in Office Actions dated June 4, 2007, and September 19, 2007, in the application.

5. To demonstrate that the polyester resin compositions of Aoyama contain more than 100 particles per 0.02 mg of the compositions of titanium-containing particles having an equivalent circular diameter of 1  $\mu$ m or more, the following tests were carried out under my direction and supervision.

EXAMPLES 1, 4-11, 13 AND 14 OF AOYAMA

Each of the polyester resin compositions of Examples 1, 4-11, 13 and 14 of Aoyama was prepared following the procedures described in these examples in Aoyama.

U.S PATENT APPLN S.N. 10/529,847  
DECLARATION UNDER 37 C.F.R. § 1.132

The number density of titanium-containing particles, i.e., the number of titanium-containing particles per 0.02 mg of each composition, having an equivalent circular diameter of  $1\mu\text{m}$  or more was measured according to the measuring method used in the examples of U.S. Patent Application Serial No. 10/529,847 as described on page 62, line 11, to page 64, line 16, of the application.

The results of the measurements are described in Table 1, "Test Results of Examples of US6365659", attached hereto and which was also attached to each of the responses filed September 4, 2007, and December 19, 2007, respectively, to the Office Actions dated June 4, 2007, and September 19, 2007.

That all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and that further these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the

U.S PATENT APPLN S.N. 10/529,847  
DECLARATION UNDER 37 C.F.R. § 1.132

application or any patent resulting therefrom.

Signed this 13 day of November, 2008.

Signed: Koichi Dan

Name: Koichi DAN

Test Results of Examples of US8385659

| Particles (X)       |                            |               | Compound oxide (A)  |                                 | Phosphorus compound (B)           |                    | Alkaline earth metal or cobalt compound (C) |                        | Polyester resin properties        | Film properties                                    |                                   | Particles (X) not added    |  |
|---------------------|----------------------------|---------------|---------------------|---------------------------------|-----------------------------------|--------------------|---|------------------------|-----------------------------------|--|-----------------------------------|----------------------------|--|
| Compound            | Average particle size (μm) | Content (wt%) | Ti/Si (molar ratio) | Content as titanium atoms (ppm) | Content as phosphorus atoms (ppm) | Ti/P (molar ratio) | Metal (content as metal atoms) (ppm)        | Ti/metal (molar ratio) | Number of particles (pcs/0.02 mg) | Number of dropouts (accepted or rejected/quantity) | Number of particles (pcs/0.02 mg) | Polyester resin properties | Number of dropouts (accepted or rejected/quantity) |
| 1 Titanium dioxide  | 0.56                       | 0.5           | 90/10               | 15                              | 30                                | 0.32               | Cobalt (47)                                 | 0.39                   | >300                              | Rejected/60  | >300                              | Rejected/35                | Rejected/35  |
| 4 Titanium dioxide  | 0.56                       | 0.5           | 95/5                | 15                              | 1.5                               | 6.5                | Cobalt (47)                                 | 0.39                   | >300                              | Rejected/63  | >300                              | Rejected/43                | Rejected/43  |
| 5 Titanium dioxide  | 0.56                       | 0.5           | 80/20               | 20                              | 32                                | 0.4                | Cobalt (120)                                | 0.2                    | >300                              | Rejected/62  | >300                              | Rejected/40                | Rejected/40  |
| 6 Titanium dioxide  | 0.58                       | 2.5           | 90/10               | 40                              | 30                                | 0.86               | Cobalt (47)                                 | 1                      | >300                              | Rejected/82  | >300                              | Rejected/47                | Rejected/47  |
| 7 Titanium dioxide  | 0.58                       | 0.01          | 90/10               | 40                              | 30                                | 0.86               | Cobalt (47)                                 | 1                      | >300                              | Rejected/83  | >300                              | Rejected/47                | Rejected/47  |
| 8 Silicon oxide     | 0.32                       | 1             | 90/10               | 40                              | 30                                | 0.86               | Cobalt (47)                                 | 1                      | >300                              | Rejected/51  | >300                              | Rejected/47                | Rejected/47  |
| 9 Silicon oxide     | 0.25                       | 0.5           | 90/10               | 40                              | 30                                | 0.86               | Cobalt (47)                                 | 1                      | >300                              | Rejected/50  | >300                              | Rejected/47                | Rejected/47  |
| 10 Silicon oxide    | 2                          | 0.5           | 90/10               | 40                              | 30                                | 0.86               | Cobalt (47)                                 | 1                      | >300                              | Rejected/66  | >300                              | Rejected/47                | Rejected/47  |
| 11 Titanium dioxide | 0.56                       | 0.5           | 90/10               | 15                              | 30                                | 0.32               | Calcium (40)                                | 0.3                    | >300                              | Rejected/60  | >300                              | Rejected/37                | Rejected/37  |
| 13 Titanium dioxide | 0.56                       | 0.5           | 85/15               | 20                              | 0.8                               | 16                 | Cobalt (40)                                 | 0.46                   | >300                              | Rejected/65  | >300                              | Rejected/35                | Rejected/35  |
| 14 Titanium dioxide | 0.56                       | 0.5           | 90/10               | 17                              | 10                                | 0.22               | Cobalt (180)                                | 0.12                   | >300                              | Rejected/61  | >300                              | Rejected/42                | Rejected/42  |